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#### **ABSTRACT**

Using extensive data from before and after school finance reforms, the author analyzes the reforms' effects on school finance inequities in Michigan and Missouri, for all school districts and for suburban districts. In Michigan, data from 1970-71 show, the state met neither of two equity standards--equality in expenditure per pupil and fiscal neutrality--either for all districts or for suburban districts. After the 1973 finance reform, which instituted a guaranteed yield program, data from 1974-75 show fiscal neutrality was improved but expenditure-per-pupil inequalities were not. Effects on Michigan's suburban districts were the same as for all districts. Missouri also, 1975-76 data show, failed to meet either equity standard before its reform; inequities were greater among suburban districts. In 1977 Missouri introduced a minimum foundation program with a guaranteed tax base (GTB). Simulation of the reform's impact indicates that it will improve fiscal neutrality but have no effect on expenditure inequalities, and that results will be the same for suburban as for all districts. Hence, reforms using GTB or guaranteed yield programs seem to meet the fiscal neutrality standard but not the expenditure-per-pupil standard, and to affect suburban districts the same as all districts. (RW)

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## PAPERS IN EDUCATION FINANCE

Paper No. 11

SCHOOL FINANCE REFORM IN MICHIGAN AND MISSOURI:
IMPACT ON SUBURBAN SCHOOL DISTRICTS

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Education Commission of the States

For Discussion at the School Finance Reform and Suburban School Districts Meeting On September 15, 1977 in Chicago, Illinois

September 1977



# SCHOOL FINANCE REFORM IN MICHIGAN AND MISSOURI: IMPACT ON SUBURBAN SCHOOL DISTRICTS

This paper has four purposes. The first is to describe the general nature of school finance inequities that existed statewide in Michigan and Missouri before their recent school finance reforms were enacted. The second is to describe the nature of those inequities as they impacted on just suburban school districts in those two states. The third is to discuss the impact of the school finance reform bills both on all districts statewide and on just suburban school districts. The last is to make some general statements, based on the results in these two states, related to school finance reform and suburban school districts and to suggest some issues to be researched to help clarify further how school finance reform impacts on suburban school districts.

In analyzing state structures of school finance, there are two basic equity standards against which the results of the system can be measured: expenditure per pupil equality across all school districts and fiscal neutrality. The first, expenditure per pupil equality, is focused on students, its purpose is to make educational resources available to students on an equal basis across all districts and a major objective of a school finance reform bill under this standard is to reduce the expenditure per pupil gap between the high and low spending districts. If data are available, the expenditure figure should be adjusted for differing pupil needs and education costs across districts. The second, fiscal neutrality, is focused, as it has been implemented in nearly all states, on taxpayers, its purpose is to make the ability to raise education revenue equal across districts and the major objective of a school finance reform program under this standard is to eliminate the relationship



between expenditures per pupil and local school district wealth. In what follows, the pre-reform and post-reform structures will be discussed in light of both of these equity standards.

### <u>Michigan</u>

For the 1970-71 school year in Michigan, current operating expenditures differed considerably across school districts. While the statewide average expenditure per pupil was \$803, the expenditure figure for the decile of districts spending the lowest amount was \$459 while that for the decile of districts spending the highest amount was \$989. Put another way, the top decile of districts spend just over 215 percent of that spent by the bottom decile. The system clearly did not meet the expenditure per pupil equality standard.

Table 1 indicates the property wealth, tax rate, expenditures per pupil, state equalization aid per pupil and total state aid per pupil for all Michigan districts by decile of assessed valuation per pupil. In comparing column 3 with column 1, one sees that expenditures per pupil for the wealthiest decile of districts was 140 percent of that for the poorest decile. In short, the Michigan system also did not meet the fiscal neutrality standard of equity in 1970-71.

Suburban school districts in Michigan fared no better nor worse than all school districts in the state. Expenditure per pupil differences, equal to those statewide, existed among suburban school districts, and as Table 2 indicates, the expenditure differences were closely related to differences in local school district property wealth. In fact, the average expenditure per pupil figure for the wealthiest decile of suburban districts was 142 percent of that of the poorest decile of districts, which was almost the same difference for all districts in the state.



TABLE 1

SELECTED SCHOOL FINANCE VARIABLES
IN ALL MICHIGAN SCHOOL DISTRICTS, 1970-71
BY DECILES OF EQUALIZED ASSESSED VALUATION PER PUPIL

Decile	Equalized Assessed Valuation Per Pupil	Equalized Tax Rate (mills)	Current Operating Expenditures Per Pupil	State Equalization Aid Per Pupil	Total State Aid Per Pupil	
. 1.	\$ 7,612	20.52	\$_ 748	<b>\$</b> 506	\$510	
2	9,687	22.19	770	465	472	
3	11,076	21.74	<b>753</b>	437	442	
4	12,369	21.35	751	413	418	
5	13,595	22.66	<b>7</b> 67	384	<b>38</b> 8	
6	15,279	22.25	<b>7</b> 67	350	356	
7	17,054	21.52	772	324	330	
. 8	20,027	22.11	805	283	293	
9	24,892	20.55	846	235	246	
10	51,574	18.85	1,050	113	133	
•	•	•	<b>.</b> ₹			
Statewide Ayerages	, \$18,305	21.38	\$ 803	\$351	,\$359	

TABLE 2

SELECTED SCHOOL FINANCE VARIABLES
IN SUBURBAN MICHIGAN SCHOOL DISTRICTS, 1970-71
BY DECILES OF EQUALIZED ASSESSED VALUATION PER PUPIL

Decile	Equalized Assessed Valuation Per Pupil	Equalized Tax Rate (mills)	Current Operating Expenditures Per Pupil	State Equalization Aid Per Pupil	Total State Aid Per Pupil
. 1	\$ 7,791	21.88	\$ 732	\$502	\$505
2	9,912	22.36	745	457	461
3	11,122	22.33	749	432	436
4	12,303	22.74	757	410	416
5	13,508	25.77	799	386	388
· · · · · · · · · · · · · · · · · · ·	15,297	25.20	801	350	354
, 7	16,998	24.06	807	326	330
8	19,671	25.21	<b>837</b> , ****	284	290
9	24,204	24.48	938	248	259
10	38,104	22.29	1,037	129	138
Suburban Statewide Averages	\$16,992	23.63	\$ 821	* \$351	<b>\$357</b>

The point is that before Michigan's school finance reform, the system, including either all school districts or just suburban school districts, met neither the expenditure per pupil equality standard nor the fiscal neutrality equity standard.

In 1973 Michigan was one of a number of states passing major school finance reform legislation, moving the state from a minimum foundation program to a guaranteed yield program. For the 1974-75 school year, after the 1973 reform had been in effect for two years, the Michigan program guaranteed that, for about the first 20 mills of tax levied, the yield from state and local sources would be \$38 per pupil. In subsequent years, the guarantee has been increased as has been the allowable mill levy. In a guaranteed yield program, state aid is based on two variables: local wealth and the local tax rate. The lower the local wealth the more the state aid and the higher the tax rate the more the state aid.

Table 3 indicates the impact of the 1973 reform bill on all Michigan school districts. In comparing column 3 to column 1, one sees that expenditures per pupil were approximately equal across the first nine declines of wealth, for which the average local yield is less than the guarantee of \$38 per pupil. (An assessed valuation per pupil of \$37,513 would yield \$37.51 per pupil in local revenue for each mill levied.) Except for the top decile of wealth, the Michigan school finance reform produced a fiscally neutral system statewide.

However, the system did not reduce the expenditure gaps between the highand low spending districts. In fact, the expenditures per pupil of the top spending decile of districts were equal to just more than 240 percent of the bottom spending decile of districts, similar to the gap before the reform.

The impact of the reform program on suburban school districts was similar to that statewide. As Table 4 shows, expenditures per pupil differ by



TABLE 3

SELECTED SCHOOL FINANCE VARIABLES
IN ALL MICHIGAN SCHOOL DISTRICTS, 1974-75
BY DECILES OF EQUALIZED ASSESSED VALUATION PER PUPIL

Decile	Equalized Assessed Valuation Per Pupil	Equalized Tax Rate (mills)	Current Operating Expenditures Per Pupil	State Equalization Aid Per Pupil	Total State Aid Per Pupil
1	\$11,254	23.86	\$1,115	\$703	\$709
2	13,974	.23.38	1,124	649	<sup>1</sup> 657
3	15,945	23.75	1,111	598	603
4	17,754	24.13	1,127	565	571
5	19,614	24.68	1,158	523	531
6	22,221	24.32	1,128	449	456
7	25,089	25.45	1,161	383	390
8	29,314	24,86	1,158	296	302
9	37,513	24.81	1,203	123	131
10,	71,353	19.16	1,421	. 61	81
Statewide <b>Av</b> erages	\$26,389	. 23.84	\$1,170	\$435	\$443

TABLE 4

SELECTED SCHOOL FINANCE VARIABLES
IN SUBURBAN MICHIGAN SCHOOL DISTRICTS, 1974-75
BY DECILES OF EQUALIZED ASSESSED VALUATION PER PUPIL

	Equalized Assessed Valuation Per Pupil	Equalized Tax Rate (mills)	Current Operating Expenditures Per Pupil	State Equalization Aid Per Pupil	Total State Aid Per Pupil
1	\$11,740	23.99	\$1,096	, \$699	\$704
2	14,297	24.38	1,122	652	. 662 . •
3	16,288	24.92	1,139	611	616
4	17,895	25.27	1,142	569	575
5	19,618	26:38	וֹגְיוֹ, וּ	<b>5</b> 39	543
6	22,144	25.18	, 1,135	442	452
7	24,500	28.77	1,267	411	418
.8	28,352	27.48	1,226	324,	3 <b>2</b> 8
9	34,843	26.73	1,226	172	<b>.177</b>
10	51,207	25.89	1,513	51	63
Suburban Statewide Averages	\$24,217	25.90	ر \$1,205	\$445 \	\$452

approximately only \$100 across the first nine deciles of wealth, for which again the local yield is less than that guaranteed by the state. Thus the reform bill produced fiscal neutrality for 90 percent of the suburban school districts, just as it did for all districts statewide.

However, the expenditure gap between the highest and lowest spending suburban school districts remained substantial with the result that the reform bill did not produce a structure for suburban districts that met the expenditure per pupil equality standard.

### Missouri

The pre and post-reform results for Michigan have been almost duplicated in Missouri. For the 1975-76 school year, expenditures per pupil varied widely in Missouri, with the expenditure of the district at the 95th percentile being 160 percent of that of the district at the 5th percentile. As Table 5 shows, moreover, the expenditure differences were closely related to school district property wealth. A comparison of column 3 with column 1 shows that as wealth increased expenditures per pupil also increased with the expenditure of the wealthiest decile of districts being 134 percent of that of the poorest decile of districts. Thus, the results of the Missouri school finance system for all school districts met neither the expenditure per pupil equality standard nor the fiscal neutrality standard.

It is interesting to note the last column of Table 5, Missouri adjusted gross income per return, which approximates a family income figure. The data indicate that this income measure is virtually unrelated to property wealth per pupil, the first column. Property wealth and income, thus, are not very correlated in Missouri.

TABLE 5

SELECTED SCHOOL FINANCE VARIABLES
IN ALL MISSOURI SCHOOL DISTRICTS, 1975-76
BY DECILES OF EQUALIZED ASSESSED VALUATION PER PUPIL

	Equalized Assessed Valuation Per Pupil	Equalized School Tax Rate (\$/100)	Current Operating Expenditures Per Pupil	State Equalization Aid Per Pupil	Total State Aid Per Pupil	Missouri's Adjusted Gross Income Per Return
1	\$ 5,704	\$3.04	\$1,123	<b>\$528</b>	\$646	\$ 8,801
2	7,351	3.04	1,107	500	617	8,565
3	8,711	3.07	1,139	473	596	9,127
4	10,289	3.07	1,175	446	568	9,331
5	11,952	3.05	1,149	403	514	9,811
6	13,317	3.14	1,193	<b>37</b> 8	490	9,914
7	15,115	3.28	1,243	345	458	9,650
8	17,084	3.20	1,282	315	422	9,543
9,	20,184	3.29	1,348	275	389	9,094
10	28,956	3.02	1,500	. 231	324	10,073
Statewide Averages	<b>\$13,</b> 867	<b>\$3.1</b> 2	<b>\$1,22</b> 6	\$389	\$503	\$ 9,390



Table 6 shows that the Missouri school finance system was more inequitable for just suburban school districts in 1975-76. The system was not fiscally neutral, with the wealthiest decile of districts spending 168 percent of that of the poorest decile of districts. The expenditure per pupil gap was also wide, with the district at the 95th percentile spending 185 percent of that of the district at the 5th percentile. In short, before Missouri's recently enacted school finance reform, the system, both statewide and among just suburban school districts, met neither standard of school finance equity.

In Table 6, which has data for suburban school districts, it is interesting to note that there is a fairly consistent relationship between property wealth, column 1, and family income, the last column. In other words, among just suburban school districts in Missouri, there is a greater tendency for wealth and income to be correlated. In addition, a comparison of the statewide average tax rate and adjusted gross income per return figures in Tables 5 and 6 shows that both tax rates and family incomes are higher for suburban school districts.

During the 1977 Legislative Session, Missouri passed its school finance reform bill that is to be implemented beginning with the 1977-78 school year. While the actual impact of the new program cannot be assessed until a later time, simulated results of the program, had it been in effect for the 1976-77 school year, are available and are used below. The new Missouri program is a two tiered program: a minimum foundation program with a guaranteed tax base for those districts choosing to spend above the foundation level. The foundation expenditure is defined to be 75 percent of the statewide average expenditure per pupil for the second preceeding year and the guaranteed tax base is set at that of the district for which, after rank ordering the districts on assessed valuation per pupil, the cumulative percent of students in 85 percent.

TABLE 6

SELECTED SCHOOL FINANCE VARIABLES
IN SUBURBAN MISSOURI SCHOOL DISTRICTS, 1975-76
BY DECILES OF EQUALIZED ASSESSED VALUATION PER PUPIL

Decile	Equalized Assessed Valuation Per Pupil	Equalized School Tax Rate (\$/100)	Current Operating Expenditures Per Pupil	State Equalization Aid Per Pupil	Total State Aid Per Pupil	Missouri's Adjusted Gross Income Per Return
1	\$ 6,137	\$3.53	\$1,079	\$486	\$586	\$11,416
. 2	7,534	3.57	1,147	492	598	11,225
3	8,704	3.38	1,089	469	585	11,174
4	10,360	3.34	7,704	457	547	11,745
5	11,659	3.45	1,193	423	534	11,102
. 6	12,895	3.66	1,167	401	502	11,763 •
7	14,195	3.75	1,225	391	<b>≈474</b> ·	12,195
8	16,150	4.02	1,363	<b>36</b> 0	436	12,408
9	18,923	4.31	1,428	313	379	14,670
10	34,967	3.64	1,812	264	318	15,911
Suburban Statewide Averages	\$14,153	\$3.67	\$1,261	\$406	\$496	\$12,361



That percentage will increase to 90 percent over five years. The program also has an income factor that decreases the required tax rate for the foundation part of the program for low income districts and increases it for high income districts. Missouri plans to phase in the new program over a four year period.

The results in Table 7 indicate the actual figures for 1976-77, the simulated impact under a 25 percent phase-in, and the simulated impact under a full funding situation. In comparing the full funding situation with the actual situation in 1976-77, it appears that when the new reform plan is fully phased-in it will provide a fiscally neutral system, i.e., the expenditure per pupil figure under the full funding situation is approximately equal across the first nine deciles of wealth. On the other hand, the new plan does not reduce the expenditure gap per se. Even under the full funding situation, the expenditure per pupil of the district at the 95th percentile will continue to be more than 160 percent of that of the school district at the 5th percentile. Just as in Michigan, therefore, the Missouri plan will meet the fiscal neutrality equity standard but not the expenditure per pupil equality standard.

The results are similar for suburban Missouri school districts, as shown in Table 8. Again, the expenditure per pupil figure in the full funding situation is approximately equal across the first nine deciles of wealth indicating that, at least for 90 percent of suburban school districts, the system will be fiscally neutral. On the other hand, significant expenditure per pupil differentials remain, with the expenditure per pupil of the suburban school districts at the 95th percentile being 175 percent of that of the district at the 5th percentile.

TABLE 7

SIMULATEO IMPACT OF NEW ACTUAL MISSOURI
SCHOOL FINANCE REFORM BILL ON ALL SCHOOL DISTRICTS, 1976-77
UNDER 25 PERCENT PHASE-IN AND FULL FUNDING

Simulated Under 25 Percent Phase-In Actual . 1976-77 Simulated Under Full Funding Equalized Missouri's Current Current Current Expenditures State Aid Equalization
Per Pupil Per Pupil Aid Per Punil Assessed Equalized Adjusted Operating Operating Total State Total State Expenditures State Aid Equalization
Per Pupil Aid Per Pupil Expenditures State Aid Equalization
Per Pupil Per Pupil Aid Per Pupil Valuation Tax Rate Gross Income Per Pupil (\$/100) Per Return Aid Per Pupil \$1,117 \$ 6,301 \$2.68 \$ 8,815 \$672 \$556 \$1,191 \$745 \$630 \$1,411 \$965 \$850 8,277 810 2.78 8,527 1,132 646 530 1,202 716 600 1,413 926 9,811 2.78 . 8,993 1,160 522 500 1.224 686 564 1,417 879 756 1:202 1,373 11,521 2.80 1,145 579 521 693 9,587 464 636 807 535 🚬 13,287 2.87 9,889 1.185 418 1.237 587 470 1.395 · 744 627 15.077 9,599 1.233 511 395 1,278 557 440 1,417 579 2.90 --- 695 16,814 1,412 1,254 476 1,293 4. 401 520 2.93 9,883 362 516 634 19.192 445 337 1.357 1,464 3.04 9:269 1:321 480 372 588 480 9 22,844 1,357 1,437 371 2.87 9,200 1,355 402 289 421 308 484 10 271 34,092 2.82 10,211 1,585 363 267 1,576 354 257 1,589 368 Statewide \$709 \$596 Averages \$15,727 \$2.85 \$ 9,396 \$1,249 \$525 \$412 \$1,294 \$570 \$456 \$1,433

TABLE 8

SIMULATED IMPACT OF NEW ACTUAL MISSOURI
SCHOOL FINANCE REFORM BILL ON SUBURBAN SCHOOL DISTRICTS, 1976-77
UNDER 25 PERCENT PHASE-IN AND FULL FUNDING

	2			. 0						F¥ €		
	Equalized		Missouri's	Current	ctual, 1976	5-77	Simulated U	Inder 25 Per	cent Phase-In	Simulat	ed Under Fu	11 Funding
Decile	Assessed Valuation	Equalized Tax Rate (S/100)	Adjusted Gross Income Per Return	Operating Expenditures Per Pupil	Total State Aid Per Pupil	State Equalization Aid Per Pupil	Current Operating Expenditures Per Pupil	Total State Aid Per Pupil	State Equalization Aid-Per Pupil	Operating Expenditures Per Pupil	Total State Aid Per Pupil	State Equalization Aid Per Pupil
1	\$ 6,895	\$3.25	\$11,465	\$1,095	\$602	\$508	\$1,171	\$678	\$583	\$1,397	\$905	\$810
2	8,479	3.13	10,955	1,085	621	521	1,153	689	588	1,355	891	791
3	9,766	3.22	11,155	1,100	573	464	1,17]	644	536	1,385	859	750
4	11,223	3.07	11,284	1,087	578	479	1)/145	636	537	1,318	809	711
<b>5</b>	12,966	3.31	11,429	1,201	545	437	1,254	598	490	1,412	756	649
6	14,436	3.21	11,720 ·	1,205	514 n	407	1,253	563	455	- 1,399	709	601
. 7	16,315	3.65	12,612	1,303	515	, 432	1,335	547	465	1,434	646	564
8	18,307	3.76	12,408	1,406	444 -	367	1,437	475	397	1,530	. 568	490
9	21,668.	3.95	14,757	1,445	388	325	1,451	394	331	1,480	422	359
10	41,724	3,42	15,825	1,938	369	309	1,925	356	296	1,925	356	. 296
Suburban Statewid Averages	•	\$3.40	\$12,361	\$1,287	<b>\$</b> 515	\$425	\$1,330	\$558	\$468	\$1,464	<b>\$</b> 692	\$602
					•				•	4.5	•	. •

## Conclusions and Potential Areas of Research.

The above results yield at least two very consistent conclusions about the impact of school finance reforms in these two states. First, guaranteed tax base or guaranteed yield programs can create systems that meet a fiscal neutrality standard but they seem to be ineffective in creating systems that meet the expenditure per pupil equality standard, i.e., they do not reduce expenditure gaps between the high and low spending districts.

Second, neither the nature of the school finance inequities in the years before reform nor the impact of the school finance reform programs themselves were different for the state as a whole as compared to just suburban school districts. In other words, suburban school districts, on average, experienced the same type and degree of inequity before reform and benefited similarly by the reform. As the above data indicate for these two states, it makes little sense to separate suburban school districts from all school districts either in analyzing the problem or in assessing the results of reform measures.

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Nevertheless, as indicated most clearly in Missouri but also in Michigan, there are some differences between suburban school districts and the other districts in the state. In general, suburban districts tend to have higher incomes, higher tax rates and higher expenditure per pupil levels. This suggests at least two possible topics for further investigation. The first would be to compare the impact of guaranteed yield forms of school programs on suburban school districts over time under fully funded systems. Since tax rates tend to be higher in suburban districts and since state aid is in part determined by the tax rate one could expect suburban districts to generate more state aid, wealth being equal, than districts in other geographical locations. A second topic would be to investigate how income affects school finance structures specifically with respect to suburban school

districts. If the relationship between property wealth and income is fairly consistent in suburban school districts, as was the case in Missouri, property wealth equalization formulas may be partial solutions at best in creating fiscal neutrality with respect to both wealth and income.

Finally, two other issues could be investigated further. First, the kind of analysis done above should be done again but after all expenditure figures have been adjusted for different pupil needs and different education costs. Such an analysis could produce different results. Second, since guaranteed yield types of school finance formulas are ineffective in reducing expenditure per pupil gaps, which is the primary object of many school finance reformers, a major question is what kinds of reform programs can be enacted that will reduce the expenditure gaps? Moreover, since suburban school districts, on average, spend more than other districts, what are economical and politically feasible ways of reducing expenditure gaps? Put another way, what are reasonable spending controls that can be placed on high spending districts while the low spending districts are "catching up?"

